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EXAMINER	
HAN, QI	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/087,421	Applicant(s) HAYASHI ET AL.	
	Examiner Qi Han	Art Unit 2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-23 and 25-39 is/are pending in the application.
- 4a) Of the above claim(s) 27-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-23,25,26 and 39 is/are rejected.
- 7) ☒ Claim(s) 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This communication is responsive to the applicant's amendment dated 11/21/2005. Applicant amended claims 1, 4, 6-8, 10 and 39 and cancelled claim 2.

Election/Restrictions

2. Applicant's election with traverse of invention Group I in the reply filed on 11/21/2005 is acknowledged. The traversal is on the ground(s) that "serious burden" is not addressed and "no serious burden exists" (see the amendment: pages 14-15). This is not found persuasive because the examiner made proper restrictions based on the reason that the inventions Group II and Group I **are distinct** from each other (see detail in the previous office action filed on 10/17/2005). It is reminded that this application claims two distinct inventions, and each patent should be granted to one invention. The applicant fails to response to the issue on the **two distinct inventions**. Further, it is noted that the applicant claims a foreign priority that is based on the two foreign patent applications that involve two distinct and separate inventions, which further supports the examiner's restriction. In addition, it is noted that this applicant includes total 39 (38) claims and 9 independent claims, which are much greater than average and indeed introduce "serious burden" for examination because it involves much more cross-reference consideration and search.

The requirement is still deemed proper and is therefore made FINAL.

Priority

3. The applicant claims a foreign priority that is based on the two foreign patent applications. It is reminded that in order to obtain the foreign priority benefit, the application filed in US must be the same as the applications filed in foreign country. By reviewing the instant application and the two foreign patent applications, it appears that the instant application seems different from the foreign patent applications. For example, it is appears that Fig. 26 is not included in or not compatible with the figures in the two foreign patent applications. Since the translation for the foreign patent applications is available and the lengthy specification has not been checked to the extent necessary to determine the presence of all possible errors, applicant's cooperation is requested in checking the application to make sure that the instant application is substantially the same as the foreign patent applications, and correcting any errors of which applicant may become aware in the specification.

Claim Objections

4. Claim 24 is objected to because of the following informalities:

Regarding claim 24, the claim reference number and content is totally missing. The office will treat the claim 24 as being cancelled hereinafter.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 3-4, 6-10, 12-15, 17, 20-23 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation of "said main terminal device" and "said phonemic database" in lines 1-2 and 7 of the claim. There is insufficient antecedent basis for the limitation(s) in the claim(s).

Regarding claim 4, the limitation "a memory device interface for exchanging data between said a memory device and said memory device interface" is unclear, because an interface is normally coupled between at least two components (other than itself), but here, it is coupled between itself and the memory device, so as being indefinite.

Regarding claims 6-8, the rejection is based on the same reason described for claim 4, because the claims include the same/similar limitation and problem as claim 4, respectively.

Claim 9 recites the limitation "said terminal device interface" in lines 5-6 of the claim. There is insufficient antecedent basis for this limitation in the claim(s).

Regarding claim 10, the limitation "a memory device interface for exchanging data between a memory" is unclear, because an interface is normally coupled between at least two components, but here it is coupled only one, a memory device. It is also unclear whether this "a memory device" is the same device recited in line 1 of the claim or another one. Therefore, the limitation is indefinite.

Claim 12 recites the limitation "one of **said main terminal device** and ..." in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim(s). In addition, the word "resister" in line 3 of the claim appears to be --register--. Further, herein

Claim 13 recites the limitation "one of **said main terminal device** and ... " in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim(s).

Regarding claims 14-15, 20-21, 23 and 25, the rejection is based on the same reason described for claim 13, because the claims recite the same or similar limitation as claim 13.

Claim 17 recites the limitation "said phonemic database" in lines 5-6 of the claim. There is insufficient antecedent basis for this limitation in the claim(s).

Regarding claim 22, the rejection is based on the same reason described for claim 20, because the dependent claim inherits all limitations of its parent claim(s).

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 12-15 and 20-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 12, the recited limitation "one of said main terminal device and said **memory device further comprises a voice-recoding processor** for a user to register a character voice" suggests that the memory device may have a voice-recoding processor, which causes an enablement problem, because the memory device is well-known in the art for storing various types of data, which is not, or does not comprise, a processor, and the limitation also lacks specific support in the specification (see closest disclosure in Fig. 30). Therefore, the claimed

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limitation was not described in the specification in such a way as to enable one skilled in the art to make and/or use the claimed invention, without undue experimentation.

Regarding claim 13, the recited limitation “one of said main terminal device and said memory device further comprises a **translation processor**...” suggests that the memory device may have a translation processor, which causes an enablement problem, because the memory device is well-known in the art for storing various types of data, which is not, or does not comprise, a processor, and the limitation also lacks specific support in the specification (see closest disclosure in Figs. 32-34). Therefore, the claimed limitation was not described in the specification in such a way as to enable one skilled in the art to make and/or use the claimed invention, without undue experimentation.

Regarding claim 14, the recited limitation “one of said main terminal device and said memory device further comprises a **voice register processor**...” suggests that the memory device may have a voice register processor, which causes an enablement problem, because the memory device is well-known in the art for storing various types of data, which is not, or does not comprise, a processor, and the limitation also lacks specific support in the specification (see closest disclosure in Fig. 30). Therefore, the claimed limitation was not described in the specification in such a way as to enable one skilled in the art to make and/or use the claimed invention, without undue experimentation.

Regarding claim 15, the recited limitation “one of said main terminal device and said memory device further comprises a **communication processor**...” suggests that the memory device may have a communication processor, which causes an enablement problem, because the memory device is well-known in the art for storing various types of data, which is not, or does

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not comprise, a processor. Even though the specification shows the “**communication processor**” included in the memory device (see Figs. 26 and 28) and recites “the memory device 2502 is also equipped therein with a communication processor capable of making communication over the Internet” (see page 30 lines 1-2), it is still lacks specific description to show an ordinary person skilled in the art how to implement the functionality. In fact, the specification indicates the memory device as being a memory card, which is well known in the art that a memory card has no communication processor in it and not capable of communicating over Internet. Therefore, the claimed limitation was not described in the specification in such a way as to enable one skilled in the art to make and/or use the claimed invention, without undue experimentation.

Regarding claim 20, the recited limitation “one of said main terminal device and said memory device further comprises a **phonemic database selector**...” suggests that the memory device may have a database processor (selector), which causes an enablement problem, because the memory device is well-known in the art for storing various types of data, which is not, or does not comprise, a processor (selector), and the limitation also lacks specific support in the specification (see closest disclosure in Fig. 44). Therefore, the claimed limitation was not described in the specification in such a way as to enable one skilled in the art to make and/or use the claimed invention, without undue experimentation.

Regarding claim 21, the rejection is based on the same reason described for claims 12 and 20, because the claim recites the same or similar limitations as claims 12 and 20.

Regarding claim 22, the rejection is based on the same reason described for claim 20, because the dependent claim inherits all limitations of its parent claim(s).

Regarding claim 23, the recited limitation “one of said main terminal device and said memory device further comprises a **visual display processor...**” suggests that the memory device may have a visual display processor, which causes an enablement problem, because the memory device is well-known in the art for storing various types of data, which is not, or does not comprise, a processor, and the limitation also lacks specific support in the specification (see closest disclosure in Fig. 47). Therefore, the claimed limitation was not described in the specification in such a way as to enable one skilled in the art to make and/or use the claimed invention, without undue experimentation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 4-8, 10-12, 15-16, 19, 23 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over MIYASHITA et al. (6,289,085 B1) hereinafter referenced as MIYASHITA in view of BENNETT (6,760,704 B1).

As per **claim 1**, MIYASHITA discloses ‘voice mail system, voice synthesizing device and method therefor’ (title) with ‘terminal device 3 (read on information terminal)’ (Fig. 2 and col. 5, lines 66-67), comprising:

“a voice synthesizer for extracting and linking phonemic data which is the most suitable to each of character data in voice-synthesis-subject data” (col. 8, lines 19-56; ‘voice synthesizer

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part synthesizes a voice representing the content of the text (voice-synthesis-subject data) using (linking) phonemes (phonemic data) and voice character data which are contained in the voice feature data (also interpreted as phonemic data)'; col. 6, lines 55-56, 'phonemes representing parameters extracted...');

"a memory device for storing [said voice-synthesis-subject data and] said phonemic data, said phonemic data being constructed of sampled data of natural voice from real human, said memory device being detachable" (col. 9, lines 43-55, 'voice feature data (phonemic data) recorded (stored) on a recording medium (a memory device) such as a floppy disk (being detachable)'; col. 9, line 65 to col. 10, line 5, 'voice font generation' (corresponding to phonemic data construction), 'extracts (construct) phonemes (phonemic data) from a voice signal of a user (sampled data of natural voice from real human)');,

"wherein said voice synthesizer voice-synthesizes said voice-synthesis-subject data [stored in said memory device] with said phonemic data stored in said memory device" (Fig. 2 and col. 8, lines 19-56; 'voice synthesizer part synthesizes a voice representing the content of the text (voice-synthesis-subject data) using phonemes (phonemic data) and voice character data').

But, MIYASHITA does not expressly disclose storing "said voice-synthesis-subject data" in the detachable memory device. However, the feature is well known in the art as evidenced by BENNETT who, in the same field of endeavor, discloses 'system for generating speech and non-speech audio messages' (title), and teaches that 'the storage 54 (Figs. 23A-3D) may contain volatile and/or non-volatile storage technologies' for 'storing the content and context information' and may be 'another magnetic disk... or other read/write device', or 'flash memory' (detachable) (col. 7, lines 1-16), and 'the content information may be stored as text and the TTS

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engine is coupled to the storage unit 54' and 'the context information may also be text converted by the TTS engine 64' (col. 8, lines 21-141), which suggests that the storage stores text (voice-synthesis-subject data). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify MIYASHITA by providing a removable storage (detachable memory device) for storing text, as taught by BENNETT, such as flash memory or floppy disk, for the purpose (motivation) of taking advantage of various available storage technologies and/or providing removable storage for storing the related information (BENNETT: col. 7, lines 1-16).

As per **claim 4**, as best understood in view of the rejection under 35 USC 112 2nd, see above, MIYASHITA discloses 'voice mail system, voice synthesizing device and method therefor' (title) with 'terminal device 3 (read on information terminal)' (Fig. 2 and col. 5, lines 66-67), comprising:

"a voice synthesizer for extracting and linking phonemic data which is the most suitable to each of character data in voice-synthesis-subject data according to a voice-synthesizing program stored in a storage unit" (col. 8, lines 19-56; 'voice synthesizer part synthesizes a voice representing the content of the text (voice-synthesis-subject data) using (linking) phonemes (phonemic data) and voice character data which are contained in the voice feature data (also interpreted as phonemic data)'; col. 6, lines 55-56, 'phonemes representing parameters extracted...'; col. 6, line 9, 'a hard disk device (a storage unit)'; 'components (including the voice synthesizer) of the terminal Fig. 2...may be structured either by hardware or a software (corresponding to a voice-synthesizing program that is inherently stored in a storage unit--hard

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disk)', which also has capability of storing the voice-synthesis-subject data (such as text) and phonemic data (such as phonemes));

"a memory device for storing said phonemic data, said memory device being detachable" (col. 9, lines 43-55, 'voice feature data (phonemic data) recorded (stored) on a recording medium (a memory device) such as a floppy disk (being detachable)');

"a memory device interface for exchanging data [between said a memory device and said memory device interface]" (col. 9, lines 43-44, 'voice font input part 34 (corresponding to memory device interface)', 'a floppy disk device (a floppy drive that inherently includes an interface for exchanging data)');

"a communication processor for accessing a network" (Fig. 2, blocks 42/44, 'transmission control' and 'transmission data (to network)'),

"wherein said voice synthesizer voice-synthesizes said voice-synthesis-subject data [stored in said memory device] with said phonemic data stored in said memory device through said memory device interface" (Fig. 2 and col. 8, lines 19-56; 'voice synthesizer part synthesizes a voice representing the content of the text (voice-synthesis-subject data) using phonemes (phonemic data) and voice character data').

But, MIYASHITA does not expressly disclose the voice-synthesis-subject data "stored in said (detachable) memory device". However, the feature is well known in the art as evidenced by BENNETT who, in the same field of endeavor, discloses 'system for generating speech and non-speech audio messages' (title), and teaches that 'the storage 54 (Figs. 23A-3D) may contain volatile and/or non-volatile storage technologies' for 'storing the content and context information' and may be 'another magnetic disk... or other read/write device', or 'flash memory'

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(detachable) (col. 7, lines 1-16), and 'the content information may be stored as text and the TTS engine is coupled to the storage unit 54' and 'the context information may also be text converted by the TTS engine 64' (col. 8, lines 21-141), which suggests that the storage stores text (voice-synthesis-subject data). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify MIYASHITA by providing a removable storage (detachable memory device) for storing text, as taught by BENNETT, such as flash memory or floppy disk, for the purpose (motivation) of taking advantage of various available storage technologies and/or providing removable storage for storing the related information (BENNETT: col. 7, lines 1-16).

As per **claim 5** (depending on claim 4), MIYASHITA in view of BENNETT further discloses that "said communication processor is capable of downloading at least one of said voice-synthesizing program, said phonemic data, and said voice-synthesis-subject data from a server device on the network" (MIYASHITA: col. 12, lines 27-37, 'reception part 30', 'receiving (downloading) an electronic mail' containing 'voice feature data (phonemic data)' and 'text data voice-synthesis-subject data'; Fig. 2, block 30 'received data (from network)').

As per **claim 6**, the rejection is based on the same reason described for claim 4, because the claim recites the same or similar limitations as claim 4.

As per **claim 7**, the rejection is based on the same reason described for claim 4, because the claim recites the same or similar limitations as claim 4.

As per **claim 8**, the rejection is based on the same reason described for claim 4, because the claim recites the same or similar limitations as claim 4.

As per **claim 10**, as best understood in view of the rejection under 35 USC 112 2nd, see above, the rejection is based on the same reason described for claim 4, because the claim recites the same or similar limitations as claim 4, wherein ‘a hard disk device’ (MIYASHITA: col. 6, line 9) is read on the claimed “a memory device”.

As per **claim 11** (depending on claim 10), MIYASHITA in view of BENNETT further discloses that “at least one of a voice-synthesis-subject database for storing said voice-synthesis-subject data, and a phonemic database for storing said phoneme data” (MIYASHITA: col. 6, line 13, ‘voice font database part (VFDB) 330 (corresponding to phonemic database)’; BENNETT: col. 6, lines 47-54, ‘a storage unit 54’ contains ‘context database’, ‘content database’ and excitable code (program) that provides functionality for processing speech and non-speech information’).

As per **claim 12** (depending on claim 1), as best understood in view of the rejection under 35 USC 112 1st and 2nd, see above, MIYASHITA in view of BENNETT further discloses “a voice-recording processor for a user to reg[s]ister a character voice, and wherein said voice synthesizer voice-synthesizes said voice-synthesis-subject data with said registered character voice” (MIYASHITA: col. 10, line 67, ‘voice font generating part...extracts phonemes from a voice signal of a user which is externally inputted (necessarily including voice-recoding mechanism)’; col. 21, lines 57-64, ‘same voice feature data may be shared by any number of sender IDs’ and ‘many voice feature data may be registered in each terminal device’).

As per **claim 15** (depending on claim 1), as best understood in view of the rejection under 35 USC 112 1st and 2nd, see above, MIYASHITA in view of BENNETT further discloses “a communication processor for accessing a network, and for downloading only a part of said

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voice-synthesis-subject data desired by a user [into one of said main terminal device and] said memory device from a server device on said network, and said server device includes a download selector and storing said voice-synthesis-subject data” (MIYASHITA: col. 12, lines 27-37, ‘reception part 30 (communication processor)’, ‘receiving (downloading) an electronic mail’ containing ‘text data (voice-synthesis-subject data)’ when ‘the voice feature data is not contained’; Fig. 2, block 30 ‘received data (from network)’; Fig. 5, ‘voice mail server’, which necessarily includes storing email data and user ID or address for selecting coming and outgoing emails).

As per **claim 16** (depending on claim 1), MIYASHITA in view of BENNETT discloses “said voice-synthesis-subject data comprises music data having musical score data and text data” (col. 8, lines 19-56, see rejection for claim 1).

As per **claim 19** (depending on claim 1), MIYASHITA in view of BENNETT further discloses “wherein said voice-synthesizer voice-synthesize said voice-synthesis-subject data while inserting, in said voice synthesis-subject data, a sound implying that phonetic sound being output is synthesized sound.” (BENNETT: col. 3, lines 25-35, ‘the non-speech portion of the message...signifies at least one characteristic of the content information’ that may be **any** description or property of the content such as type, content source...’; Figs. 1A-1E and col. 4, lines 8-28, ‘any sort of non-speech audio may be used, such as bells, tones, nature sounds, music...’; so that one of such non-speech audio (sound) can be used for indicating (implying) the followed synthesized email message, as claimed).

As per **claim 23** (depending on claim 1), as best understood in view of the rejection under 35 USC 112 1st and 2nd, see above, MIYASHITA in view of BENNETT further discloses “a

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visual display processor for providing a visual display associated with said voice-synthesis-subject data”, (MIYASHITA: col. 6, line 9, ‘a multimedia computer’, ‘a monitor’, which has capability of displaying the related date as claimed).

As per **claim 25** (depending on claim 1), as best understood in view of the rejection under 35 USC 112 2nd, see above, MIYASHITA in view of BENNETT further discloses “said memory device inputs said voice-synthesis-subject data” and “at least one of a speaker and an earphone for producing phonetic sound synthesized by said voice synthesizer”, (MIYASHITA: Fig.2, block 340 ‘FD (floppy disk)’ and 24 ‘VF input’; col. 4, lines 20-23, ‘output a voice synthesized by the voice synthesizer...through a speaker’).

As per **claim 26** (depending on claim 1), MIYASHITA in view of BENNETT further discloses “said memory device comprises one of a memory card, an optical disk, and a magnetic disk”, (MIYASHITA: Fig.2, block 340 ‘FD (floppy disk)’).

8. Claims 3 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over MIYASHITA in view of BENNETT and further in view of CRUICKSHANK (2003/0158734 A1).

As per **claim 3** (depending on claim 1), as best understood in view of the rejection under 35 USC 112 2nd, see above, MIYASHITA in view of BENNETT further discloses:

“a voice output processor for delivering an output of said voice synthesizer to a speaker [after removing an undesired noise from said output]” (MIYASHITA: col. 4, lines 20-23, ‘output a voice synthesized by the voice synthesizer...through a speaker’);

“an operation unit for a user to input a command” (col. 6, lines 4-5, ‘an input device 40 having a keyboard and a mouse (necessarily input user command)’); and

“a communication processor for accessing a server device over a network” (Fig. 2, ‘transmission control 42 (a communication processor)’, ‘transmission data (to network)’ and receive data (from network)’; Fig. 6, ‘voice mail server’);

“a [said] phonemic database [includes sampled data of natural voice taken from human]” (col. 6, line 12, ‘a voice font database part 32’),

“wherein, if the user selects a kind of said phonemic database and said voice-synthesis-subject data through said operation unit, said communication processor transfers information on the selected kind of said phonemic database and said selected voice-synthesis-subject data to said server device” (Fig. 6 shows ‘voice mail server’ comprising ‘VFDB (voice font database)’ (corresponding to phonemic database); col. 17, lines 56-64, ‘the search to the text parsing part of the voice synthesizing part 32 and the sender ID contained in the header to the voice font’; col. 18, lines 8-9, ‘voice output function of a text using voice feature data individual to each of users’; which suggest server has all text-to-speech related functionalities as that of terminal in Fig. 2; it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify MIYASHITA in view of BENNETT by providing a server having voice synthesis functionality for multiple users whose the voice feature data is stored in the voice font database and associated with the corresponding user IDs, for the purpose (motivation) of offering synthesized output for user provide text and related phonemic information, such as language, gender (see Table 1), so that the combined system has capability of implementing the functionality as claimed).

“wherein said voice synthesizer synthesizes phonetic sound with said phonemic database and said voice-synthesis-subject data transferred from said server device via the network” (Figs 2 and 6, ‘transmission control 42 (a communication processor)’, ‘transmission data (to network)’ and ‘receive data (from network)’).

But, MIYASHITA in view of BENNETT does not expressly disclose the voice output “after removing an undesired noise from said output” and the phonemic database including “sampled data of natural voice taken from human”. However, the features are well known in the art as evidenced by CRUICKSHANK who, in the same field of endeavor, discloses ‘text to speech conversion using word concatenation’ (title), comprising ‘speech samples...processed to smooth any discontinuity (corresponding to removing an undesired noise from said output)’ and ‘speech sample database’ (corresponding to natural voice taken from human) (paragraph 33). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify MIYASHITA in view of BENNETT by providing speech samples processed to smooth any discontinuity and using speech sample database, as taught by CRUICKSHANK, for the purpose (motivation) of converting text to a more natural sounding speech (CRUICKSHANK: paragraph 9).

As per **claim 39**, the rejection is based on the same reason described for claims 1 and 3, because the claim recites the same or similar limitations as claims 1 and 3.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over MIYASHITA in view of BENNETT, as applied to claim 8, and further in view of GUPTA et al. (2003/0083105 A1) hereinafter referenced as GUPTA.

As per **claim 9** (depending on claim 8), as best understood in view of the rejection under 35 USC 112 2nd, see above, MIYASHITA in view of BENNETT further discloses “a memory controller for downloading [said voice-synthesizing program,] said phonemic data, and said voice-synthesis-subject data from a server device on said network through said communication processor, and for transferring said downloaded voice-synthesis-subject data, phonemic data, and voice-synthesizing program to said storage unit via [said terminal device interface and] said memory device interface” (MIYASHITA: col. 12, lines 27-37, ‘reception part 30’, ‘receiving (downloading) an electronic mail’ containing ‘voice feature data (phonemic data)’ and ‘text data (voice-synthesis-subject data)’; Fig. 2, block 30 ‘received data (from network)’; Fig. 5, ‘voice mail server’).

But, MIYASHITA in view of BENNETT does not expressly disclose downloading “said voice-synthesizing program”. However, the feature is well known in the art as evidenced by GUPTA who, in the same field of endeavor, discloses ‘method and apparatus for performing text to speech synthesis’ (title), and teaches that ‘the communication terminal is operative to download a program element to replace the resident speech synthesizer engine’ (GUPTA: claim 7). GUPTA further teaches that ‘the speech synthesis pre-processing unit 202 and the speech synthesizer engine 218 can exit externally of computer platform as a set of program instructions recorded or stored on a machine readable storage medium’ including ‘a floppy disk, a CD-ROM or any other suitable nonvolatile storage medium’ (GUPTA: paragraph 30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify MIYASHITA in view of BENNETT by providing downloading speech (voice) synthesizer engine, as taught by GUPTA, , for the purpose (motivation) of regularly updating the

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taking speech synthesizer unit and/or improving the speech synthesis functionality of the terminal (GUPTA: paragraph 27).

10. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over MIYASHITA in view of BENNETT, as applied to claim 1, and further in view of BROWN et al. (5,805,832) hereinafter referenced as BROWN.

As per **claim 13** (depending on claim 1), as best understood in view of the rejection under 35 USC 112 2nd, see above, MIYASHITA in view of BENNETT does not expressly disclose “a translation processor for translating said voice-synthesis-subject data into language desired by a user, and wherein said speech synthesizer voice-synthesis said translated voice-synthesis-subject data”. However, the feature is well known in the art as evidenced by BROWN who teaches ‘using computer platform’ for ‘a transaction system’, and that ‘translated target text produced by the translation application running on the computer system...with the addition of speech synthesizer...to convert translated target text into speech in target language’ (col. 12, lines 25-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify MIYASHITA in view of BENNETT by providing a translation mechanism to convert translated target text into speech in target language using a speech synthesizer, as taught by BROWN, for the purpose (motivation) of offering output translated data in a variety of known manners (BROWN: paragraph 27).

As per **claim 14** (depending on claim 13), the rejection is based on the same reason described for claim 12, because the claim recites the same or similar limitations as claim 12, wherein one of user IDs would be associated with a voice feature data in translated language.

11. Claims 18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over MIYASHITA in view of BENNETT, as applied to claim 4, and further in view of HOLM et al. (5,850,629) hereinafter referenced as HOLM.

As per **claim 18** (depending on claim 1), even though MIYASHITA in view of BENNETT discloses “said voice synthesizer voice-synthesizes a certain character string in said voice-synthesis-subject data” as state above (see claim 1), MIYASHITA in view of BENNETT does not expressly disclose “outputs phonetic sound in other voice than voice of a character specified by a user”. However, the feature is well known in the art as evidenced by HOLM who, in the same field of endeavor, discloses ‘user interface controller for text-to-speech synthesizer’ (title), comprising different TTS engines, dictionaries, and types of output sound (Fig. 5, and col. 6, lines 32-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify MIYASHITA in view of BENNETT by providing different TTS engines, dictionaries, and types of output sound, as taught by HOLM, for the purpose (motivation) of conveniently selecting user desired output voice (HOLM: col. 6, lines 48-51).

As per **claim 20** (depending on claim 1), as best understood in view of the rejection under 35 USC 112 1st and 2nd, see above, the rejection is based on the same reason described for claim 18, because the rejection for claim 18 covers the same or similar limitations as claim 20, wherein the ‘user dictionaries (necessarily include identifying codes or names for each of them)’ and the corresponding ‘use sampled sounds’ can be read on the claimed “phonemic database(s)”.

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As per **claim 21** (depending on claim 20), as best understood in view of the rejection under 35 USC 112 1st and 2nd, see above, the rejection is based on the same reason described for claims 12 and 20, because the rejection for claims 12 and 20 covers the same or similar limitations as claims 12 and 20.

Conclusion

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February 2, 2006


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